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10/032,872	12/26/2001	Dennis Boyd	26422/20650	7442

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EXAMINER

HO, THOMAS Y

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,872

Applicant(s)

BOYD, DENNIS

Examiner

Thomas Y Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-16, 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 9, 11-12, 15-16, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd USPN5107557 in view of Saltness USPN3251075.

As to claim 1, Boyd discloses an inflatable mattress comprising:

- A first inflatable compartment 13 having a first layer, a second layer, and a periphery defining a length and width.
- A second inflatable compartment 23 having at least one additional layer (fig.13) and extending generally said length and width of said periphery.
- Said second inflatable compartment 23 being tufted (fig.13).
- A perimeter seal connecting said first inflatable compartment 13 to said second inflatable compartment 23.
- Wherein said perimeter seal is recessed from said periphery.
- Said second layer forms a boundary surface between said first inflatable compartment 13 and said second inflatable compartment 23.

Boyd fails to disclose or suggest:

- Said second layer contains a plurality of fluid communication channels between said first compartment and said second compartment.

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- Said fluid communication channels providing fluid communication between the first and second inflatable compartments to flow into the other of the first and second inflatable compartments.

Saltness discloses an inflatable bladder wherein a second layer 40 containing a plurality of fluid communication channels 41 providing fluid communication between the first and second inflatable compartments to flow into the other of the first and second inflatable compartments, that form a boundary between two inflatable compartments for free passage of air between upper and lower sections of the bladder (col.3, ln.1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the second layer disclosed by Boyd to have fluid communication channels, as taught by Saltness, to prevent the panels from blowing outwardly and allow for air passage between upper and lower compartments.

As to claim 3, Boyd discloses an inflatable mattress wherein:

- Said second inflatable compartment 23 further comprises a second additional layer between said one additional layer and said first inflatable compartment 13.
- Said second additional layer being sealed to said second layer of said first inflatable compartment 13 adjacent said second layer.

Saltness discloses the following not disclosed by Boyd:

- Second layer contains a plurality of fluid communication channels 41.

As to claim 4, Boyd discloses an inflatable mattress wherein:

- Said second inflatable compartment 23 comprises a plurality of discontinuous seals.

As to claim 5, Boyd discloses an inflatable mattress wherein:

- Said second inflatable compartment 23 further comprises a plurality of attachments.

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As to claim 9, Boyd discloses an inflatable mattress further comprising:

- A valve 21 in said first inflatable compartment 13.

As to claim 11, Boyd discloses an inflatable mattress comprising:

- A first inflatable compartment 13 having a first layer, a second layer, and sides with a length and width and defining a periphery.
- A second inflatable compartment 23 having at least one additional layer (fig.13) and extending generally the length and width of the periphery.
- Said second inflatable compartment 23 being tufted (fig.13).
- A perimeter seal connecting said first inflatable compartment 13 to said second inflatable compartment 23.
- Wherein said perimeter seal is spaced a distance from the periphery.

Saltness discloses the following not disclosed by Boyd:

- A fluid communication channel 41 between said first inflatable compartment and said second inflatable compartment.
- Said fluid communication channels providing fluid communication between the first and second inflatable compartments to flow into the other of the first and second inflatable compartments.

As to claim 12, Boyd discloses an inflatable mattress wherein:

- Said second inflatable compartment 23 further comprises a plurality of discontinuous seals.

As to claim 15, Boyd discloses an inflatable mattress comprising:

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- A first inflatable compartment 13 having a first layer, a second layer, and a periphery defining a length and a width.
- A second inflatable compartment 23 having at least one additional layer (fig.13) and extending generally said length and width of said periphery.
- Said second inflatable compartment 23 being tufted (fig.13).
- A layer of cushioning material in one of said first inflatable compartment 13 and said second inflatable compartment 23. The first inflatable compartment 13 contains water (col.2, ln.48-55).
- The other of said first inflatable compartment 13 and said second inflatable compartment 23 is inflated but does not contain a layer of cushioning material. The second inflatable compartment 23 contains air (col.2, ln.56-66).
- Said second layer forms a boundary surface between said first inflatable compartment 13 and said second inflatable compartment 23.

Saltness discloses the following not disclosed by Boyd:

- Said second layer contains a plurality of fluid communication between said first compartment and said second compartment.
- Said fluid communication channels providing fluid communication between the first and second inflatable compartments to flow into the other of the first and second inflatable compartments.

As to claim 16, Boyd discloses an inflatable mattress wherein:

- Said layer of cushioning material is selected from the group consisting of foams, gels, and liquids. Water is the cushioning material disclosed by Boyd.

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As to claim 18, Boyd discloses an inflatable mattress wherein:

- Said second inflatable compartment 23 further comprises a second additional layer between said one additional layer and said first inflatable compartment 13.
- Said second additional layer being sealed to said second layer of said first inflatable compartment 13 adjacent said second layer.

Saltness discloses the following not disclosed by Boyd:

- Second layer contains a plurality of fluid communication channels 41.

As to claim 19, Boyd discloses an inflatable mattress further comprising:

- A perimeter seal connecting said first inflatable compartment 13 to said second inflatable compartment 23.
- Wherein said perimeter seal is recessed from said periphery.

Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd USPN5107557 in view of Saltness USPN3251075, and further in view of Mattson USPN4371997.

As to claim 6, Boyd fails to disclose or suggest:

- A layer of cushioning material within said second inflatable compartment.

Mattson discloses an inflatable cushion wherein a layer of cushioning material 10 is within a second inflatable compartment 11, because by using a cushioning material 10, the cushion will retain shape and level of comfort over an extended period of time (col.2, ln.15-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the second inflatable compartment disclosed by Boyd to have a cushioning material

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therein, as taught by Mattson, so the cushion shape and comfort level is retained over a long period of time.

As to claim 7, Mattson discloses the following not disclosed by Boyd:

- Said layer of cushioning material is selected from the group consisting of foams, gels, and liquids (col.1, ln.39-40).

As to claim 13, Mattson discloses the following not disclosed by Boyd:

- A layer of cushioning material within said second inflatable compartment.

As to claim 14, Mattson discloses the following not disclosed by Boyd:

- Said layer of cushioning material is selected from the group consisting of foams, gels, and liquids.

Claims 8, 10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyd USPN5107557 in view of Saltness USPN3251075, and further in view of Lindsay USPN3644950.

As to claim 8, Boyd fails to disclose or suggest:

- A valve between said first inflatable compartment 13 and said second inflatable compartment 23.

Lindsay discloses an inflatable support system with a valve 4 between the first inflatable compartment 1 and the second inflatable compartment 5, because the valve allows the user to change firmness to meet the user's needs and desires (col.2, ln.56-69). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inflatable mattress disclosed by Boyd to have a valve between the compartments, as taught by Lindsay, to allow a user to change firmness.

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As to claim 10, Boyd fails to disclose:

- A pump connected with said valve.

Lindsay discloses an inflatable support system wherein a pump or air compressor 3 is connected with a valve leading to the first inflatable compartment 1, to inflate/deflate the unit to desired firmness (col.2, ln.55-69). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the first inflatable compartment valve disclosed by Boyd to have a pump attached, as taught by Lindsay, to provide pressurized air to adjust firmness.

As to claim 20, Lindsay discloses the following not disclosed by Boyd:

- A valve between said first inflatable compartment and said second inflatable compartment.
- A pump in fluid communication with said valve.

Response to Arguments

Applicant's arguments filed 5/22/03 have been fully considered but they are not persuasive.

In response to applicant's arguments against the obviousness of the combination of Boyd USPN5107557 in view of Saltness USPN3251075, the examiner disagrees and the rejections stand as recited above.

Applicant argues that the inclusion of a fluid communication channel between the air cushion and the water bladder of Boyd557 would negate the benefits of Boyd557's mattress assembly. Applicant states that the suggested modification would allow water to flow from the water bladder into the air cushion, thus causing a user to suffer heat loss. This argument is not

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persuasive for several reasons. The combination of Boyd557 in view of Saltness would teach the addition of one or more fluid communication channels (41 in Saltness) between the first and second chambers of Boyd557. Applicant's argument is based on the assumption that the amount of water in the mattress assembly of the Boyd557 and Saltness combination would be of an amount where the user would be in contact with the water through the top surface. However, the amount of water in the mattress of Boyd557 could easily be equal in volume to the space defined by the lower chamber, with only air floating on top of the water in the upper chamber of Boyd557. Therefore, the addition of the fluid channels of Saltness to the mattress of Boyd557 would not cause a user to suffer heat loss by conduction. Hypothetical situations regarding the type, amount, and temperature of a fluid used in the claimed mattress assembly hold no patentable weight, and are not persuasive arguments. Whether water or fluid is used is also moot because the structure of the mattress assembly holds patentable weight, not how it is used. The Boyd557 mattress could be filled with air instead of water in both chambers and still read on the claimed invention. Furthermore, the motivation disclosed by Saltness of providing means to maintain a desired shape is not the only motivation for the combination, but others exist as well, as recited in the rejections above.

Furthermore, the examiner's reason for pointing out that the upper chamber of Boyd557 has fluid inside was not to show that the first and second chambers are in fluid communication, but rather as evidence that water in the upper chamber could be desirable. The examiner's arguments pointing to the presence of liquid in the first chamber were only necessary to rebut applicant's arguments presented in the previous amendment stating that it would be undesirable to have fluid in the top chamber of Boyd557.

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Whether fluid passes through the channel or not is moot because the structure is able to accomplish the function. By claiming that the fluid communication channel provides for, enables, or allows flow is functional language and holds no patentable weight. Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA1959). “[A]pparatus claims cover what a device *is*, not what a device *does*.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528, (Fed. Cir. 1990).

Finally, there are other motivations, aside from maintaining shape, to provide the passages 41 of Saltness in the mattress assembly of Boyd557, as stated in the rejections in the detailed action above. The whole diaphragm of Saltness need to be bodily incorporated into Boyd557, because Saltness can be used as a teaching only for a single fluid communication channel between two compartments. Boyd557 never clearly states that the chambers CANNOT be in fluid communication, and the reasons against the rejection that are presented by applicant are based on hypothetical situations involving the use of water, which is not a part of the claimed invention.

In addition, applicant is directed to new art cited US20030024050A1 which also shows two chambers in fluid communication through holes 11, and also reads on the several claimed limitations.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US20030024050A1 to Boso discloses an increased height inflatable support system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y Ho whose telephone number is (703)305-4556. The examiner can normally be reached on M-F 10:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J Swann can be reached on (703)306-4115. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9326 for regular communications and (703)872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-1113.

TYH
July 2, 2003



WILLIAM MILLER
PRIMARY